REMARKS/ARGUMENTS

1. Claims 3, 5, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicant acknowledges and appreciates the allowance of claims 3, 5, and 10 if rewritten appropriately.

2. The Examiner cited 2nd "air duct" on lines 9 and 10 of claim 1 has been deleted as required. Reconsideration of this claim objection is requested.

3. Claims 1, 2, 4, 7-9, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Furuhata et al. (US 5,951,136). Claims 1, 2, 4, 7-9, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al. (US 2003/0189694). Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Bok (US 2002/0180938).

According to the present invention (paragraph [00019] as published and Fig.6), when the exhaust fan 33 is driven, the internal air pressure of the projection apparatus 20 is lower than the external pressure so as to cause negative pressure. Outside air inletting from the intake port 31, is guided into the projection apparatus 20 by the air duct 32 and directly flows through the heating elements 21 disposed at the outlet 322 of the air duct 32. Finally, the exhaust fan 33 brings out the heated air.

There are no additional fan elements in the air path between the intake port and the heating element pushing the air toward the heating element. Outside air is drawn in and across the heating element only by the exhaust fan, maximizing cooling efficiency, and reducing escaping light and noise (and costs) over the prior art (paragraph [0021]).

Furuhata et al., in Fig.3, clearly teach the use of an exhaust fan 16 on one side of the heating element 7 and an additional intake fan 17 between the air duct 170 and the

heating element 7 pushing air toward the heating elements (Col.11, lines 10-17, 24-31).

Fig.14 of Yamada et al. also teaches an exhaust fan 524 (and 525) and an additional intake fan 523 positioned between the air duct 94 and the heating element 44 (paragraphs [0160]-[0162]).

Thus, one claimed structural difference between the teachings of the present invention and both Furuhata and Yamada is that the present invention utilizes the exhaust fan to directly draw in outside air, through the air duct, across the heating element, and exhausts the newly heated air passing by the heating elements. On the other hand, both Furuhata and Yamada have an additional fan (17 or 523) pushing air toward the heating element.

The object of the additional fan (17 or 523) in Furuhata and Yamada is "introduces air into the ventilation path" (Furuhata Col.11, lines 18-23), while the object of the exhaust fan (16 or 524-525) in Furuhata and Yamada is to exhaust heated air to the outside of the housing (Furuhata Col.11, lines 23-32). The object of the exhaust fan of the present invention is to inlet outside air into the air path, past the heating element, and exhaust the heated air to the outside of the housing (paragraph [0019]).

Thus the present invention retains the function of Furuhata and Yamada's additional fan (17 or 523) without the need of the additional fan, saving costs, energy, and reduces noise. MPEP 2144.04 (II)(B) says that omission of an element with retention of the element's function is an indication of unobviousness.

Without disclaim of any kind regarding the merits of any and all claims in the application, claim 1 has been amended to further point out and claim the invention with the added limitation of the exhaust fan drawing outside air into said intake port, through said air duct, across said heating element and there are no additional fan elements in an air path between the intake port and the heating element for pushing the air toward the heating element. The applicant asserts that claim 1 as amended clearly defines a structurally new and unobvious device and respectfully requests reconsideration and allowance of all pending claims.

Sincerely yours,

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